Claims

We claim:

5   1. A computer-implemented method for use in delivering data of a user-defined type to a requesting system, the method comprising:

      receiving a request from the requesting system for data of the user-defined type;

      identifying a storage location for the requested data;

      identifying a storage location for program code designed to allow manipulation of

10   the requested data on the requesting system;

      retrieving both the requested data and the program code from their respective storage locations; and

      delivering both the requested data and the program code to the requesting system.

15   2. The method of claim 1, further comprising:

      receiving a subsequent request from the requesting system for data of the user-defined type; and

      in response, delivering the data requested in the subsequent request to the requesting system without delivering the program code.

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      3. The method of claim 1, further comprising:

      receiving a subsequent request from the requesting system for data of the user defined type, where the subsequent request includes version information identifying a version the program code delivered previously to the requesting system;

25   comparing the version information to information identifying a current version of the program code; and

      if the two versions match, delivering the data requested in the subsequent request to the requesting system without delivering the program code.

4. A computer program, stored on a tangible storage medium, for use in delivering data of a user-defined type to a requesting system, the program comprising executable instructions that, when executed in the database system, cause the system to:

receive a request from the requesting system for data of the user-defined type;

5   identify a storage location for the requested data;

identify a storage location for program code designed to allow manipulation of the requested data on the requesting system;

retrieve both the requested data and the program code from their respective storage locations; and

10   deliver both the requested data and the program code to the requesting system.

5. The program of claim 4, where the instructions also cause the computer to:

receive a subsequent request from the requesting system for data of the user-defined type; and

15   in response, deliver the data requested in the subsequent request to the requesting system without delivering the program code.

6. The program of claim 4, where the instructions also cause the computer to:

receive a subsequent request from the requesting system for data of the user defined

20   type, where the subsequent request includes version information identifying a version the program code delivered previously to the requesting system;

compare the version information to information identifying a current version of the program code; and

if the two versions match, deliver the data requested in the subsequent request to the

25   requesting system without delivering the program code.

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7. A database system comprising:

a data-storage facility; and

a computer system connected to the data-storage facility and configured to:

        receive a request from a requesting system for data of a user-defined

5   type;

        identify a storage location in the data-storage facility for the requested

data;

        identify a storage location in the data-storage facility for program code

designed to allow manipulation of the requested data on the requesting

10   system;

        retrieve both the requested data and the program code from their

respective storage locations; and

        deliver both the requested data and the program code to the requesting

system.

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8. The database system of claim 7, where the computer system is also configured

to:

receive a subsequent request from the requesting system for data of the user-defined

type; and

20   in response, deliver the data requested in the subsequent request to the requesting

system without delivering the program code.

9. The database system of claim 7, where the computer system is also configured to:

receive a subsequent request from the requesting system for data of the user defined type, where the subsequent request includes version information identifying a version the program code delivered previously to the requesting system;

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compare the version information to information identifying a current version of the program code; and

if the two versions match, deliver the data requested in the subsequent request to the requesting system without delivering the program code.

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10. A method for use in a database system in storing data of a user-defined type, the method comprising:

receiving a request to store data of the user-defined type;

in response to the request, receiving the data to be stored along with program code designed to allow manipulation of the data on a system other than the database system;

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and

storing both the data and the program code in a data-storage facility.

11. A computer program, stored on a tangible storage medium, for use in a database system in storing data of a user-defined type, the program comprising executable instructions that, when executed in the database system, cause the system to:

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receive a request to store data of the user-defined type;

in response to the request, receive the data to be stored along with program code designed to allow manipulation of the data on a system other than the database system;

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and

storing both the data and the program code in a data-storage facility.

12. A database system comprising:

a data-storage facility; and

a computer system connected to the data-storage facility and configured to:

     receive a request to store data of a user-defined type;

5   in response to the request, receiving the data to be stored along with program code designed to allow manipulation of the data on a system other than the database system; and

     storing both the data and the program code in a data-storage facility.